

TAMURA  
Appl. No. 09/766,318  
February 9, 2004

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A heat-resistant glass fiber which has a composition ~~comprising~~ consisting essentially of, by weight %, 56 to 58.5% of  $\text{SiO}_2$ , 12 to 17% of  $\text{Al}_2\text{O}_3$ , 16 to 27% of  $\text{CaO}$ , 1 to 9% of  $\text{MgO}$ , 0 to 1% of  $\text{Na}_2\text{O}$  and 0 to 1% of  $\text{K}_2\text{O}$  as the entirety of the fiber and containing neither  $\text{B}_2\text{O}_3$  nor  $\text{F}_2$ , and which has a surface layer portion made of a silicic glass having an  $\text{SiO}_2$  content of at least 90% by weight, wherein the fiber substantially retains its flexibility when heated for ten hours at 900°C. <sup>Capable</sup> - expected,

2. (Original) The heat-resistant glass fiber of claim 1, wherein the surface layer portion made of a silicic glass having an  $\text{SiO}_2$  content of at least 90% by weight has a thickness of 0.1 to 1.0  $\mu\text{m}$ .

3. (Original) The heat-resistant glass fiber of claim 1, wherein a difference  $\Delta T$  between a spinning temperature which is a melting temperature of a glass having a viscosity of 100 Pa·s and a liquidus temperature is at least 30°C.

4. (Original) A process for the production of the heat-resistant glass fiber recited in claim 1, which comprises treating the surface of a glass fiber which has a composition comprising, by weight %, 56 to 58.5% of  $\text{SiO}_2$ , 12 to 17% of  $\text{Al}_2\text{O}_3$ , 16 to 27% of  $\text{CaO}$ , 1 to 9% of  $\text{MgO}$ , 0 to 1% of  $\text{Na}_2\text{O}$  and 0 to 1% of  $\text{K}_2\text{O}$  and containing neither  $\text{B}_2\text{O}_3$  nor  $\text{F}_2$ , with a mineral acid.

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5. (Original) The process of claim 4, wherein the treatment is carried out by immersing the glass fiber in an aqueous solution containing, as the mineral acid, 1 to 10% by weight of at least one acid selected from HCl, H<sub>2</sub>SO<sub>4</sub> or HNO<sub>3</sub> at a temperature of 0 to 90°C.

6. (Currently Amended) A heat-resistant glass fiber which has a surface layer portion at least 0.01  $\mu$ m thick, made of silicic glass having an SiO<sub>2</sub> content of at least 90%, the balance of the glass fiber having a composition ~~comprising~~ consisting essentially of, by weight %, 56 to 58.5% of SiO<sub>2</sub>, 12 to 17% of Al<sub>2</sub>O<sub>3</sub>, 16 to 27% of CaO, 1 to 9% of MgO, 0 to 1% of Na<sub>2</sub>O and 0 to 1% of K<sub>2</sub>O as the entirety of the fiber and containing neither B<sub>2</sub>O<sub>3</sub> nor F<sub>2</sub> wherein the fiber substantially retains its flexibility when heated for ten hours at 900°C.